DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028460
Date Inspected: 22-Sep-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Jobsite

CWI Name: William Sherwood

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG 12 East and West

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Robert A. DeArmond was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

12WEST

1). Deck Access Hole (DAH) 12W PP116.5~117.0 W5

12EAST

2). R1 (Weld Repair) E2 Longitudinal Deck Plate Splice Y +9300 ~Y+29740

1). Deck Access Hole (DAH) 12W PP116.5~117.0 W5

This QAI inspector performed visual observation of ABF Quality Control personnel, performing UT on OBG 12W Corner Assembly. The member(s) is/are identified as SPCM Weld No. 12W PP 116.5 W5 DAH. This weld was previously excavated and re-welded by ABF Welding personnel as described in RWR 201208-076. QC Ultrasonic Testing (UT) was performed to transfer lower 1/3 UT rejects to the underside of the deck for additional weld excavation and weld repair.

2). R1 (Weld Repair) E2 Longitudinal Deck Plate Splice Y +9300 ~Y+29740

The QAI observed that welder 2773-Richard Clayborn, was repair welding various Magnetic Particle (MT)

indications that was previously discovered by QC within the cover pass welds. This occurred between Y+ 9,300 and Y+ 29,740 E.2 longitudinal deck plate splice in the flat (1G) position. The weld designations reviewed are as follows:

Y+9,300~9,400, Y+14,250~14,550, Y+17,000~17,300, Y+19,400~19,530, Y+19,730~19,800, Y+ 20,400~20,700, Y+21,100~21,300, Y+29,070~29,640, Y+29,680~29,740

This QAI observed these parameters as defined in Welding Procedure Specification ABF-WPS-D15-1001-Repair. The QC inspector William Sherwood verified the 1 to 3mm back gouge of both under-cut and under-fill for these locations followed by MT of the back-gouge and found it to be acceptable; this information was relayed to the QAI. The welder then continued Pre-heat throughout the area during welding using a propane type weed burner at 110 degrees Celsius (225 degrees F) which was verified using a tempilstik and infrared gun by the QC. The welder was using the Shielded Metal Arc Welding (SMAW) electrode E7018 for the Complete Joint Penetration (CJP) weld in the flat (1G) position with 3.2 mm electrode with 127.5 amps. The welder utilized a power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was William Sherwood and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations.
At the time METS observation was performed. No issues were noted by the QAI

QA Observation and Verification Summary
The QA inspector observed the QC activities and the welding utilizing the WPS's as noted above, which appeared to be posted at the weld station. The welding parameters and surface temperatures were verified by the QC inspectors utilizing a Fluke 337 clamp meter for the electrical welding parameters and a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. The consumables utilized for the welding process stated appeared to comply with the AWS Specification and AWS Classification. The QC inspection, testing and welding performed on this shift appeared to be in general compliance with the contract documents. At random intervals, the QAI verified the QC inspection, testing, welding parameters and the surface temperatures utilizing various inspection equipment and gages which included a Fluke 337 Clamp Meter and Tempilstik Temperature indicators. Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Summary of Conversations:

As mentioned above between QA and QC concerning this project

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	DeArmond,Robert	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer